## REMARKS/ARGUMENTS

The Examiner is thanked for the clarity and conciseness of the Office Action and for the citation of the references which have been studied with interest and care.

**Claim Rejections - 35 U.S.C. § 103**

Claims 1-9, 16-20 and 57 were rejected under 35 U.S.C. 103(a) as being unpatentable over Scofield et al. (US 2003/0001939) in view of Walker (6,325,505).

Scofield et al. discloses a system for early transparency detection. Media is optically scanned using a blue-violet light to obtain both diffuse and specular reflectance data. FIG. 24 shows blue-violet LED 105, diffuse sensor 130 and specular sensor 130'.

> [T]he blue-violet LED 105 has a peak amplitude output at about 428 nanometers. The output also extends down to approximately 340 nanometers, into the ultraviolet range past the end of the visible range, which is around 400 nanometers, with a dominant wavelength of 464 nanometers. While the illustrated peak wavelength of 428 nanometers is shown, it is believed that suitable results may be obtained with an LED having a peak wavelength of 400-430 nanometers.

[Scofield et al., [0167]].

Scofield et al. does not disclose or suggest a red LED. To the contrary, Scofield et al. teaches that the blue-violet LED 105 with its shorter wavelengths "is superior" to a 700-1100 nanometer infrared LED. [Scofield et al., [0168]].

Walker discloses a multi-function optical sensing system for determining the presence, color and location of ink droplets printed by printheads in a printzone of an inkjet printing mechanism, and for determining the media type from indicia printed on media indicative of the media type. The spectral reflectance of the illuminate media is used to determine the ink color or hue when illuminated by a blue light emitting diode (LED) of the sensor, and to interpret the media type indicia when illuminated by a red LED.

> **For media type detection** in the illustrated embodiment [FIG. 15 of Walker], **the spectral response of the filter 325 is selected to absorb up to 99.99% of the light emitted from the red LED 315**. However, the longer wavelength light emanating from the fluorescing ink is readily transmitted through the filter 325 and onto the photodiode lens 135.

[Walker, column 25, lines 46-51. (Emphasis added.)]

> **For media type detection, the various different types of print media**, such as transparencies, photographic paper, labels, etc., may be **marked prior to sale with an invisible fluorescent ink to have indicia, such as a bar code or other marking to indicate the media type**.

[Walker, column 22, lines 47-51. (Emphasis added.)]

Scofield et al. relates to a property-based media sensor which means that "passive" properties of the media (e.g., ratio of energy received by the diffuse sensor 130 and specular sensor 130', respectively) are used to identify the media type.

In contrast with Scofield et al., Walker discloses an "active" approach to media type detection that depends upon marking the media with a bar code made from near-infrared fluorescent (NIRF) ink.

In relation to Applicant's claims, Walker does not disclose or suggest "sensors within the housing, the sensors being configured to detect diffuse and specular reflections of the light from an object." To the contrary, the Walker media type detection technique involves using red light to cause the NIRF ink to fluoresce at longer wavelengths of near-infrared (near-IR). Moreover, the filter 325 of Walker is used to let only near-IR wavelengths onto the photodiode lens 135.

Walker does not disclose multiple sensors used for media type detection. Moreover, the single sensor 300 [used for media type detection] of Walker does not detect reflection of the light from an object, but rather it detects **fluorescence** from NIRF ink (**which is different from a reflection**).

The Walker approach to media type detection is dramatically different from that of Scofield et al. Even if one of ordinary skill in the art were to properly combine Scofield et al. and Walker, the collective teachings of these references do not disclose or suggest using multiple sensors to detect diffuse and specular reflections of red light (light predominantly of a red color) from an object.

For the reasons discussed above, it is respectfully submitted that none of Applicant's claims would have been obvious to one of ordinary skill in the art over the collective teachings of the cited references. Withdrawal of this rejection is respectfully requested.

## CONCLUDING REMARKS

Applicant submits that the application is in condition for allowance. Concurrence by the Examiner and early passage of the application to issue are respectfully requested.

Respectfully submitted,

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